



INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# X.721

**Corrigendum 4**  
(02/00)

SERIES X: DATA NETWORKS AND OPEN SYSTEM  
COMMUNICATIONS

OSI management – Structure of Management Information

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Information technology – Open Systems  
Interconnection – Structure of management  
information: Definition of management information

**Technical Corrigendum 4: Use of ASN.1 1997**

ITU-T Recommendation X.721 – Corrigendum 4

(Previously CCITT Recommendation)

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**INTERNATIONAL STANDARD 10165-2**

**ITU-T RECOMMENDATION X.721**

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
STRUCTURE OF MANAGEMENT INFORMATION:  
DEFINITION OF MANAGEMENT INFORMATION**

**TECHNICAL CORRIGENDUM 4**

**Use of ASN.1 1997**

**Summary**

This technical Corrigendum 4 revises the text of Definition of Management Information (DMI) to include ASN.1:1997 in 2.1, 2.2 and 14.2.

**Source**

The ITU-T Recommendation X.721, Corrigendum 4 was approved on 4 February 2000. The identical text is also published as ISO/IEC Technical Corrigendum 4 to 10165-2.

## FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

## NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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## INTERNATIONAL STANDARD

## ITU-T RECOMMENDATION

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
STRUCTURE OF MANAGEMENT INFORMATION:  
DEFINITION OF MANAGEMENT INFORMATION**

**TECHNICAL CORRIGENDUM 4  
Use of ASN.1 1997**

**1) Subclause 2.1**

*Insert the following references alphanumerically:*

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model.*
- ITU-T Recommendation X.680 (1997) | ISO/IEC 8824-1:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*
- ITU-T Recommendation X.710 (1997) | ISO/IEC 9595:1998, *Information technology – Open Systems Interconnection – Common management information service.*
- ITU-T Recommendation X.711 (1997) | ISO/IEC 9596-1:1998, *Information technology – Open Systems Interconnection – Common management information protocol: Specification.*

**2) Clause 5**

*Add the following footnote after the clause 5 heading:*

Users of this Recommendation | International Standard may freely reproduce the abstract syntax definitions in the clause so that they may be used for their intended purpose.

**3) Subclause 14.2**

*Apply the following changes:*

*In the IMPORTS from CMIP-1, insert the following before CMISFilter:*

**CMIP-ATTRIBUTE, AttributeSet, DistinguishedName,**

*Remove the following IMPORTS statement:*

- NOTE – This Recommendation | International Standard imports DistinguishedName from
- CCITT Rec. X.501 (1988) | ISO/IEC 9594-2:1990. The specification for this syntax can now be
- found in an informative annex of ITU-T Rec. X.711 (1997) | ISO/IEC 9596-1:1997.

**DistinguishedName FROM InformationFramework {joint-iso-ccitt ds(5) modules(1) informationFramework(1) }**

*Remove the following comment:*

- Note that the syntax of AE-title to be used is from CCITT Rec. X.227 | ISO 8650 corrigendum and not "ANY".

*Insert the following after the definition of smi2AttributeGroup:*

```
DMI-TYPE-IDENTIFIER ::= CLASS {
    &id OBJECT IDENTIFIER UNIQUE,
    &Value }

WITH SYNTAX {
    TYPE    &Value
    ID      &id }
```

*Replace the production for AttributeValueChangeDefinition with the following ASN.1 production:*

```
AttributeValueChangeDefinition ::= SET OF SEQUENCE {
    attributeId          CMIP-ATTRIBUTE&.id ({AttributeSet}),
    oldAttributeValue    [1] CMIP-ATTRIBUTE&.Value ({AttributeSet} {@.attributeId}) OPTIONAL,
    newAttributeValue    [2] CMIP-ATTRIBUTE&.Value ({AttributeSet} {@.attributeId}) }
```

*Replace the production for ManagementExtension with the following ASN.1 Production:*

```
DMI-EXTENSION ::= DMI-TYPE-IDENTIFIER

ManagementExtension ::= SEQUENCE {
    identifier    DMI-EXTENSION&.id ({ManagementExtensionSet}),
    significance [1] BOOLEAN DEFAULT FALSE,
    information   [2] DMI-EXTENSION&.Value ({ManagementExtensionSet} {@.identifier}) }

ManagementExtensionSet DMI-EXTENSION ::= {...}
```

*Replace the production for ServiceUser with the following ASN.1 production:*

```
DMI-SERVICEUSER ::= DMI-TYPE-IDENTIFIER

ServiceUser ::= SEQUENCE {
    identifier DMI-SERVICEUSER&.id ({ServiceUserSet}),
    details    DMI-SERVICEUSER&.Value ({ServiceUserSet} {@.identifier}) }

ServiceUserSet DMI-SERVICEUSER ::= {...}
```

*Replace the production for SupportedFeatures with the following ASN.1 production:*

```
DMI-SUPPORTEDFEATURES ::= DMI-TYPE-IDENTIFIER

SupportedFeatures ::= SEQUENCE {
    featureIdentifier DMI-SUPPORTEDFEATURES&.id ({SupportedFeaturesSet}),
    featureInfo       DMI-SUPPORTEDFEATURES&.Value ({SupportedFeaturesSet} {@.featureIdentifier}) }

SupportedFeaturesSet DMI-SUPPORTEDFEATURES ::= {...}
```

#### 4) Annex G

*Remove Annex G.*



## ITU-T RECOMMENDATIONS SERIES

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